

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY


(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 09 DEC 2005

WIPO

PCT

Applicant's or agent's file reference PAEVBA249		<b>FOR FURTHER ACTION</b>		See Form PCT/IPEA/416
International application No. PCT/EP2005/000933		International filing date (day/month/year) 27.01.2005		Priority date (day/month/year) 05.02.2004
International Patent Classification (IPC) or national classification and IPC G01N21/64				
Applicant ELAN VITAL (UK) LIMITED et al.				
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 6 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> sent to the applicant and to the International Bureau a total of sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>				
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>				
Date of submission of the demand  10.08.2005		Date of completion of this report  08.12.2005		
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465		Authorized Officer  Mason, W Telephone No. +49 89 2399-2623		



**INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY**

International application No.  
PCT/EP2005/000933

---

**Box No. I Basis of the report**

---

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
  - ☐ publication of the international application (under Rule 12.4)
  - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements\*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

**Description, Pages**

1-24 as originally filed

**Claims, Numbers**

1-60 as originally filed

**Drawings, Sheets**

1/9-9/9 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing *(specify)*:
  - ☐ any table(s) related to sequence listing *(specify)*:
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing *(specify)*:
  - ☐ any table(s) related to sequence listing *(specify)*:

\* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY**

International application No.  
PCT/EP2005/000933

---

**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

---

1. Statement

Novelty (N)	Yes: Claims	14-19, 24-25, 27-30, 32, 34-36, 38-39, 42-45, 49-51, 53, 55, 57-58
	No: Claims	1-13, 20-23, 26, 31, 33, 37, 40-41, 46-48, 52, 54,56,59-60
Inventive step (IS)	Yes: Claims	30, 32
	No: Claims	1-29, 31, 33-60
Industrial applicability (IA)	Yes: Claims	1-60
	No: Claims	

2. Citations and explanations (Rule 70.7):

**see separate sheet**

## **RE SECTION V**

- 1.1 The present application relates to measurement of fluids in a compartment with a consistent light condition (e.g. a light tight chamber) using radiation.

The following documents are referred to:

D1=JP2003344290; D2=WO03043738.

## **1.2 CLARITY AND INTERPRETATION OF CLAIMS**

- a claim directed to a fluid analyser system is defined by the features of the system itself and does not comprise the fluid which is to be analysed so that the claimed system is not limited by the wording relating to the fluid.

## **2. PRIOR ART**

D1 (Figs. 1, 4) discloses a system for performing and fluorescently monitoring polymerase chain reactions (PCR) of a thermo cycled DNA samples comprising transparent plastic containers 3 which have openings at the top through which samples in the form of fluids (see paragraph [0009]) are dispensed or removed. The containers are provided with lids 4 which are preferably sealed to the containers in order to prevent evaporation of the (liquid) samples during thermo cycling. The system further comprises light sources 6 arranged corresponding to the containers 3, an excitation filter 8a for the incident light and emission filter 8b for the fluorescence light. A case 2 for shielding the measurement of fluorescence from the sample from disturbance from ambient light sources and a detection system 10 comprising a CCD array camera and a lens 14 are also provided.

The base material 5 or heating block of aluminium which has holes for containers 3 in which the samples are placed is thermo regulated by unit 12 under the control of computer 13 to heat the samples via heater wires in heating block 5 - air cooling is

provided by ventilators 11a, 11b. D1 further discloses that: the signal output is displayed on a computer monitor, the exposure to light is timed, the measurement is taken at a plurality of wavelengths by selectively changing filter 35, and that image processing is performed on the camera signal.

That the sample is in the form of a liquid is further disclosed in paragraph [0049] which describes the solutions, water and concentrations of components of the sample mixture, in paragraph [0052] which describes the pouring of the sample into the containers and in Fig. 5 which indicates the liquid nature of the contents of the containers by using horizontal hatched lines.

### 3. NOVELTY

In view of the interpretation of claims and the disclosure of the prior art above:

Claims 1-13, 20-23, 26, 31, 33, 37, 40-41, 46-48, 52, 54, 56, 59-60. See D1;

- do not meet the requirement of novelty (Art. 33.2 PCT).

### 4. INVENTIVE STEP

4.1 The subject matter of the following claims, not disclosed in combination in the above document is considered to be evident to the person skilled in the field of radiation measurements in compartments with a consistent light condition (i.e. aware of both D1, and D2 (Figs. 9-19)) for the reasons indicated:

Claims 14-15. Receptacle made of fluorocarbon polymer, polypropylene. See D2.

Claims 16-19. Receptacle has one-way valve; valve holder; Two one way valves. See D2.

Claims 24-25. Removal of distortion noise. Standard signal processing technique.

Claim 27-29, 34-36. Measurement of humidity, dew point, atmospheric pressure, location, gravity, use of GPS. See D2.

Claims 38-39, 42-45, 49, 57. Detection and quantification of gases, emissions from combustion engines, human and animal breath, environmental air, industrial gases. See D2.

Claims 50-51, 53. Use in security and personal identification, weather forecasting. See D2.

Claim 55 Transmission between first location at home and ambulance. See D2.

Claim 58. Use of method for blood type determination. See D2.

Claims 14-19, 24-25, 27-29, 34-36, 38-39, 42-45, 49-51, 53, 55, 57-58 therefore do not meet the requirement of inventive step (Art. 33.3 PCT).

- 4.2 Claims 30, 32. Neither D1, D2 nor any of the remaining documents of prior art provide any motivation for activation of the fluid sample using a radio frequency discharge - these claims therefore appear to meet the requirement of inventive step.